

REMARKS

Applicants have amended the claims of the application to recite the layered product of the present invention in terms which are precise, definite and distinguish over the product of the Obara (JP 07-047152) as modified by Nishimura et al. (JP 07-112039) ("Nishimura") and over Igakura et al. (JP 09-277420) ("Igakura") as modified by Obara and Nishimura.

More specifically, claims 1 and 17 have been amended to define the layered product of the invention as comprising;

a thermosetting resin layer,

a thermoplastic resin layer provided on one of the surfaces of the molded object, and)

reinforcing continuous filaments arranged in one direction in said thermosetting resin layer, wherein

the surface of said thermoplastic resin layer opposite to the surface of the molded object and a surface of said thermosetting resin layer are integrated with each other to form a two-layer structure having a rugged interface in such a manner that:

(a) a resin constituting said thermosetting resin layer is not mixed with a resin constituting said thermoplastic resin layer and a resin constituting said thermoplastic resin layer is not mixed with a resin constituting said thermosetting resin layer, and

(b) a portion of said reinforcing continuous filaments substantially parallel to the surface of the molded object are included in both of said thermoplastic resin layer and said thermosetting resin layer; and wherein

the thickness of an area where said portion of said reinforcing continuous filaments exists in said thermoplastic resin layer is 10 µm or more.

The claims as amended are definite within the meaning of the requirements of 35 U.S.C. § 112, second paragraph, notwithstanding the use of the term "rugged" for the following reasons.

First, the term "rugged" itself as used in the claims is not a term of degree. The term is used in the claims as an adjective - not an adverb - to define a characteristic of the interface of the thermosetting layer and the thermoplastic layer, i.e., a rough, uneven, or irregular surface.

Second, the extent of the ruggedness is defined by the limitations that;

a portion of said reinforcing continuous filaments substantially parallel to the surface of the molded object are included in both of said thermoplastic resin layer and said thermosetting resin layer; and

the thickness of an area where said portion of said

reinforcing continuous filaments exists in said thermoplastic resin layer is 10 µm or more.

A person of ordinary skill in the art could readily determine whether a layered product, which includes the other limitations of claims 1 and 17, also includes these limitations and, thus, is within the scope of the claims. Nothing more is required under the second paragraph of 35 U.S.C. § 112.

Regarding the rejections of the claims under 35 U.S.C. § 103(a), as has been explained in the responses to the Actions in the application and as is described in Obara, in the fiber-reinforced product of Obara, a domain in which the thermosetting resin and the thermoplastic resin are intermingled is formed at the boundary of the fiber reinforced thermosetting resin and the fiber reinforced thermoplastic resin. A domain in which a thermosetting resin and a thermoplastic resin are intermingled, or mixed, is not an interface, i.e., "a plane or other surface forming a common boundary of two bodies or spaces" (Merriam-Webster's Unabridged Dictionary). Layers of different resins integrated with each other to form a [rugged] interface are not intermingled. The Office has not provided any evidence of reasoning to support a position that a domain of intermingled resins as described in Obara is an interface.

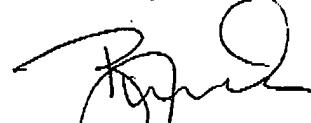
Attached hereto are drawings which illustrate the difference between the rugged interface of the layered product of the invention and the domain of intermingled thermosetting resin and thermoplastic resin of Obara. In the illustration of the product of Obara, the black squiggly line illustrates the thermoplastic resin.

Removal of the 35 U.S.C. § 103(a) grounds of rejection and a notice of allowability of the claims are respectfully requested.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,
KUBOVCIK & KUBOVCIK

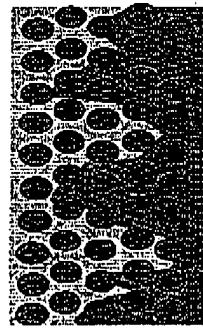


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Attachment: One sheet of drawings

A layered product
defined in claim 1
of the present application



A layered product
produced by
Example 5 of Obara



Thermosetting resin and thermoplastic resin exist separately each other through a rugged interface

Thermosetting resin exists in a network structure formed with a thermoplastic resin, i.e. both resins exist in an intermingled state each other



Thermosetting resin layer



Reinforcing filaments



Thermoplastic resin layer